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CAPITALISM EXPANSION AND LOCAL ADAPTATION: MARITIME TRADE NETWORK ON THE NORTH COAST OF JAVA DURING THE EARLY MODERN PERIOD

This study shows how the expansion of European capitalism in shipping and maritime trade in Java at the beginning of the modern period did not actually result in a total death of local maritime shipping and trade. What was happening is the process of adaptation of seafarers and local maritime trade. They had to adjust to the new pressing situation following the political and military defeat of the rulers of the port cities on the north coast of Java. This study uses historical perspective by emphasizing on secondary sources to analyze and identify the early modern maritime trade network. Although, it is more like literature review, this study is able to reconstruct the local traders' adaptation in the middle of capitalism expansion. It is known that seafarers and local maritime traders were unable to keep up with competition in the field of shipping technology so they adapted by filling in business spaces that were occupied by European maritime seamen and traders. In addition, another form of adaptation in dealing with European maritime capitalism is the process of marginalization and contraction in the scale of the shipping network of local seafarers in Java. They finally focused more on doing local shipping rather than international and intra-Asian shipping gradually controlled by European maritime capitalism.

Keywords: Capitalism Expansion; Local Adaptation; Maritime Trade; North Coast of Java; Early Modern Period.

Introduction

This article examines the role of coastal cities on the north coast of Java in the maritime trade network in Southeast Asia at the beginning of the modern period when Javanese maritime forces faced off against European maritime expansion as a new maritime power in the area. This study may be interesting given that there are still many people who think that the life of Javanese after the collapse of the kingdom of Demak (1568) was a feudal society based entirely on agrarian life. Even a very famous classical Indonesian expert, D.H. Burger, stated that after the destruction of Demak maritime fleet due to its

failure in the series of attacks on the Portuguese in Malacca in 1511, 1554, and 1574, the Javanese fleet was already very weak when the Dutch arrived in the last years of the 16th century.¹

In Javanese local historiography, it is also illustrated that the decline of the maritime world on the north coast of Java was exacerbated by a series of succession conflicts and the destruction of the Javanese port cities by Mataram kingdom. It is known that the kingdom of Mataram, centered inland of Central Java, had carried out attacks on important trading cities on the north coast of Central and East Java who did not want to submit to their rule, following the collapse of Demak kingdom. The conquest was carried out on Demak (1604), Pasuruan (1616), Lasem (1617), Tuban (1617), Tuban (1619), Gresik (1618 and 1622), Madura (1624), Surabaya (1625), and Pati (1625 and 1627). Afterwards, Mataram monopolized the rice trade which became a source of wealth for the coastal traders. Burger stated that as a result of this chaos, 'the Javanese in 1657 could not manage their own shipments of rice by ship to Batavia and in 1677 the Javanese were said to have no ability at sea'. In the forthcoming period, Java was described as entering into a very acute feudalization process with an agrarian economic base that was closed to the outside world.² Java experienced cultural involution which resulted in sophisticated Javanese feudal culture, as characterized in a very strict hierarchy in the fields of politics, economics, social relations, and language. It is described that Java had been isolated and closed to the outside world by developing a subsistence economy (selfsufficient).3 The maritime world, either shipping or trade were in the hands of the Vereenigde Oostindische Compagnie (VOC.) This historiography gives the impression as if the maritime power of the Javanese which once crossed over between India and China suddenly experienced death by the presence of the dominant VOC.

The historical description of the maritime tragedy in the cities of the north coast of Java needs to be reconstructed. Even if the Javanese maritime power underwent a change, perhaps it would be better potrayed as an adaptation process to maintain survival. Likewise, even if there was destruction, it certainly did not happen suddenly but rather over time. In certain contexts, the change can be seen mainly not as a death, but an adaptation process in dealing with a new pressing situation. In addition, perhaps not all aspects of the Javanese maritime sectors suffered a tragic fate. The maritime sectors mentioned in this article covers some issues, namely shipping and trade, maritime affairs, fisheries, piracy, and so forth. This article tries to construct the role of Java especially several cities located on the north coast of Java such as Banten, Jakarta, Cirebon, Semarang, Tuban, and Surabaya in the context of shipping and trade networks in the archipelago and Southeast Asia in the early days of the modern period.

Entering the Early Modern Period

A Portuguese traveler, Tomé Pires, who visited Java port in the early sixteenth century listened with his own ears that the greatness of Majapahit was still circulating among many people at that time. He said: ⁴

They say that the island of Java used to rule as far as the Moluccas (*Maluco*) on the eastern side and (over) a great part of the west; and that it had almost all this for a long time past until about a hundred years ago, when its power began to diminish until it came to its present state.

The decline of Majapahit, as the largest Hindu kingdom ever existed in Java, was caused by the struggle for power among the royal families to the point that this kingdom could no longer control its territories.⁵ The process was in line with the development of Islam in the ports which previously was controlled by Majapahit. Internal destruction eventually pushed the ports to separate themselves from Majapahit and gained new vitality from the spirit of Islam. Although political entities in the Indonesian archipelago were destroyed along with the collapse of Majapahit in the late 15th century, maritime trade networks experienced increasing development due to the centrifugal process of political power. This centrifugal process in political entities was actually followed by a process of economic integration during the period which Reid called "the Age of Commerce" (1450 - 1680) when Islamic traders took on a very important role in the cities of the north coast of Java and even in Southeast Asia.⁶

During the age of commerce, cities on the north coast of Java also experienced rapid development which was an inherent part of international shipping and trade. The north coast of Java is an important part of what historians have come to know as the Java Sea Zone⁷ or the Java Sea Network.⁸ The Java Sea Network covers the island of Java itself (specifically on the north coast), Bali, Lombok, Sumba, South Kalimantan, South Sulawesi, Sumbawa, and Timor. Although the north coast of Java was divided mainly into the Sunda kingdom (western Java) and Majapahit kingdom (central and eastern Java), economically all these regions had a close relationship. During the heyday of Demak sultanate following the collapse of Majapahit, almost the entire northern coast of Java was under the control of Muslim rulers and traders. However, political disintegration occurred repeatedly after the division of Muslim political power between Banten, Cirebon, Mataram, and the city states located on the north coast of central and eastern Java until the arrival of the Dutch at the end of the 16th century.

During the "age of commerce", Java supplied rice outside Java to the Maluku Islands and even Malacca. Javanese traders bought various

products such as spices and various types of forest products (camphor, incense, gambier, sandalwood, and so forth.)9 For instance, in the 15th centuries, Javanese traders visited Timor Island annually to obtain sandawood and beeswax. 10 The Javanese traders did not consume these commodities on a large scale but exported them to other regions such as China and the countries located in the west of the Malacca Straits. Some foreign traders came directly to Java to collect the commodities brought by Javanese traders who bought various commodities to be sold again to various regions west of the Malacca Strait. However, some of them just came to Malacca to wait for local traders from Java, Bugis, Madura, Banjar, etc. who brought spices and other tropical commodities. Finally, barter activities took place, where local people obtained textiles, metal goods, jewelry, and so on in exchange for spices. Java was not only supplier of commodities to other regions, but also as a major entrepôt of trade between Maluku Islands and Malacca which involved the entire Java Sea region. Java functioned as a warehouse for imported commodities before distribution to surrounding areas outside Java, such as Palembang, Lampung, Banjarmasin, Bali and Lombok, and the Maluku islands. The harbor along the north coast of Java became a meeting point for traders from outside Java and their foreign trading partners. Thus, during the age of commerce, maritime trade network in the Java Sea region ran along three axes namely inter-island, intra-Asian, and international trade in the archipelago.¹¹

The development of trade among the cities on the north coast of Java with other regions in the archipelago paralleled the development of trade between the ports on Java's coast itself. This local trade was encouraged by two main factors, namely: *first*, certain degree of specialization of commodities, for instance, salt from the north coast of central and eastern Java, shrimp paste from Juana and Cirebon, traditional cloth from Jepara, rice from the inland of central and eastern Java, all of which were products needed by people from other ports and their hinterlands including Sunda Kelapa port. In return, Sunda Kelapa provided a variety of imported goods to be traded in Java. Sunda Kelapa was an export-import port visited by traders from various regions such as Sumatra, Kalimantan, Malacca, Makassar, Madura, and so on. Various types of textiles from India could be found in this port in large numbers.¹²

The second factor is related to the function of several ports, chiefly the major port of Sunda Kelapa, which functioned as a collecting port and at the same time as a distribution point for imported and exported commodities after the destruction of Demak sultanate and the weakening of Cirebon sultanate's position. Small ports on the north coast of Java traded various commodities for export through Sunda Kelapa such as salt, rice, various processed fish products, and so on. The trading fleet from the north coast of Java, on its return, brought imported goods to be traded at the ports in the Javanese trading cities. It should be noted that the small ports along the north coast of Java also played a very important role as a network of maritime relations in the region. Aside

from being supplier of daily necessities for ships or boats that were passing by, these small ports also had hinterlands which required many imported goods.

It is rather difficult to obtain reliable data on the exact trade volumes of port cities on the north coast of Java. Van Leur provided very valuable comparison of the maritime trade volume of the archipelago with Southeast Asia in general. He estimated that during the 15th and 16th centuries Southeast Asian maritime trade was served by approximately 480 large and small vessels with sizes ranging from 200 to 400 tons. Of that number, 330 to 340 medium-sized vessels handle inter-island trade in the archipelago and 115 ships serving Indian and Chinese trade. In addition estimated shipping tonnage in 1622 for Indonesia was 50,000 tons; China and Siam: 18,000 tons, Aceh: 3000 tons, Coromandel: 10,000 tons, Netherlands: 14,000 tons (less than 15%). In 1608, a VOC ship carried about 8,440 sacks of pepper from Banten port (located on the north coast of western Java). Thus, it is clear that when the Dutch first arrived in the archipelago, they were minority traders with very small contribution.

Political Alliance And Alienation In Trade Wars

The early modern era was marked by the arrival of Westerners. The north coast of Java had already a relatively well-established trade pattern where cities on the north coast of Java became the backbone of the Java Sea network. This maritime trade pattern covered not only inlocal and inter-island maritime trade in the archipelago, but also international trade. However, this maritime trade pattern experienced various adjustments after the arrival of Westerners in the archipelago. Western seafarers introduced an armed trade system which was a big blow to local traders, causing various adjustments.¹⁵

The Portuguese conquest of Malacca in 1511 triggered the development of Muslim trade centers in other places such as Aceh, Johor, and Brunei. At the same time, Portuguese expansion had also played a role in stimulating the growth of many emporiums along the north coast of Java such as Demak, Banten, Cirebon, Surabaya, and so on to replace the inland kingdoms of Majapahit and Sunda. It should be noted that the presence of the Portuguese as a competitor of Muslim traders in Southeast Asia indirectly supported the rise of the northern coast cities of Java after the fall of the Majapahit kingdom at the end of the 15th century. However, the economic growth of the coastal cities along the Java coast was not only suspected by the Portuguese in Malacca, but also by Mataram as a powerful kingdom in Central Java. Mataram began to conquer the city-states on the north coast of Java in the early 16th century with the exception of Banten. 16

Mataram destroyed almost all of the economic resources in the coastal cities located on the northern coast of Java resulting in an exodus of traders to various ports outside Java, such as Makassar and Banjarmasin.¹⁷ All trading

cities along the northern coast of Java were weakened except Banten when the Dutch began to expand their monopoly in the region during the 17th century. Eventually Western power controlled the trading center on the north coast of Java. In 1619, the VOC conquered the city of Jayakarta, followed by port cities along the north coast of Java. In the mid-17th century, the Dutch controlled trade in almost all of the port cities to the east of Batavia. Only through war and the application of *devide et impera* politics, the Dutch finally succeeded in controlling Banten in 1682. Other ports in the archipelago also suffered the same fate. In 1641 Malacca was also conquered by the Dutch from Portuguese hands.

It must be understood that one of the main objectives of the establishment of the VOC (1602) was to obtain the desired product, namely spices, to be sold in Europe to get a good profit. However, because the long-distance maritime trading business required large investments with very high risks, maximum profit was needed to cover operational costs. That reason seems to have encouraged the VOC to formulate various spectacular policies, including engaging in intra-Asian trade in order to obtain a 'medium of exchange' which could be used to buy spices. In addition, because they oftentimes faced monopolies and price wars in the producing regions, the VOC finally wanted to enforce monopolies through violence and war.

At the beginning of the establishment of the VOC, indeed, the north coast of Java was not yet considered as an important area for the VOC. At that time Java had not produced the commodities demanded by Europe, except pepper from Banten, and coffee from Priangan only in the early 18th century, though Priangan coffee had had to compete with Yemeni and Caribbean coffee. Therefore, the north coast of central and eastern Java were not yet so important to the VOC. The significance of Java for the VOC during that time was more related to strategic-political interests than economic in view of the function of Batavia as render-vous for the VOC shipping network in Asia. Even the VOC organization globally was controlled by its operations in Batavia. It was in this context that Batavia became increasingly important and its security protected by the VOC. Therefore, it was understandable that during the late 17th and 18th centuries, the VOC's policies in Java were aimed at protecting Batavia, which in turn affected the economy of the northern coast of Java and at the same time encouraged the VOC to become increasingly involved in territorial conflicts with political forces in Java.

A series of protracted internal conflicts in Mataram allowed the VOC to control the northern coast of Java gradually. In 1705, in order to resolve the succession dispute between Amangkurat III against Paku Buwana I (supported by the Dutch), the VOC obtained the areas of Semarang, Losari, Tegal, Donan, Cirebon, and East Madura. The remaining remnants of the coast of Mataram were also successfully occupied by the VOC during the reign of Paku Buwana II when this trading company helped to quell the Chinese uprising (1740-1743).

Through agreements 1743 and 1746, all remaining coastal areas of Mataram were taken over by the VOC.¹⁸ On the north coast of Java, the VOC replaced Mataram. VOC implemented a monopoly on commodities of its interests such as rice. There was an obvious difference between Mataram and the VOC; during the Mataram period indigenous shipping and trading were developed for the benefit of the kingdom, but during the VOC's rule, the potential of native sea power on Java was under its control.¹¹⁹

Since the mid-18th century, the VOC had not only succeeded in controlling the entire north coast of Java but also began to tame the rulers in Mataram especially after the Giyanti Agreement in 1755. Afterwards, the north coast of Java occupied a very important position in the context of the VOC's business empire globally. Conversely, control over areas outside Java was less important.²⁰ Politically, the north coast of Java underwent a reintegration process under the VOC authority which in turn also greatly influenced local shipping and trading activities. In order to be managed effectively and efficiently, the north coast region of Java was divided into four provinces namely Banten, Batavia, Cirebon, and the Northeast Coast of Java. In these areas, around 30% of all VOC power were placed.²¹ Thus, since the middle of the 18th century, Batavia had been politically protected by the control of the kingdom of Banten and Mataram. The concerns were only for prosperity, sustainability, and the development of Batavia. At that time, what was needed by Batavia was rice to meet population consumption and building materials to build Batavia as a VOC center of the world. Although the rice monopoly by the Mataram kingdom had been broken by the control of the north coast of Java by the VOC, it did not mean that there was automatically a guarantee that Batavia would get enough rice. Therefore various policies were taken by the VOC to regulate the trade of rice and building materials, especially teak wood from the northern coast of Central and East Java. To that end, the VOC gave the task to the regents of the north coast of Java to ensure the availability of rice and teak wood for Batavia. Only after Batavia's needs had been fulfilled, these two commodities were sold to other regions.

Shipping Network

In discussing the maritime trade network of the north coast of Java, there are several variables that need to be discussed, including the natural conditions of the Java coast which include the condition of coastal, monsoon, port, traded products, trade actors, and the vessels used.

Physical Condition of the North Coast of Java

Until the nineteenth century, the physical condition of the north coast of Java had been flat and forested. A little far inland one could see several mountain

peaks. The height of these mountain peaks varies from 10,000 to 11,000 feet and their positions were marked on maps made by Westerners. The mountain tops were was a natural navigator important for seamen, especially traditional seamen and fishermen. During the east monsoon clouds would usually cover the mountain peaks, but during the west monsoon the highest peaks could be seen from a distance of more than 80 miles. Along the northern coast of Java, most coastlines with depths varying from 8 to 15 meters with different distances could be approached by shipping lines. Most beaches on Java's coast were muddy and sandy especially near the mouth of the river. Moreover, in some places there are dangerous rocks.²²

The beaches around Jakarta Bay in the 19th century, for example, were still in the form of soft mud, although in the surrounding areas sand bases and some coral reefs could also be found. The depth of shipping lines was around 15 to 20 meters. However, in general, a beach depth of around 5 meters could be found up to a distance of 1 mile from the coastline. Shipping lines were quite protected by Pulau Seribu (Thousand Islands) from the threat of big waves during the west monsoon season. The presence of sand dunes and reefs located near the shipping channel was usually marked by a harbor manager, although these buoys were often shifted due to ripples. In general, the beaches around Jakarta were flat, but about 30 miles outside the coast of Jakarta the peaks of Mount Gede, Pangrango, and Salak can be seen.²²³ The tops of the mountains can be used as seamarks by seamen who will be anchored at the port of Tanjung Priok, Jakarta. During the west season these peaks can be seen from the Jakarta Bay but are rarely seen during the east season.²⁴

Several small ports can be found in the eastern regions such as Cirebon, Tegal, and Pekalongan, which had coastal conditions that were not much different from the Jakarta Bay area. During the west monsoon, Cirebon was a safe harbor against high sea waves. The peak of Mount Ceremai could be used as a landmark to anchor at this port. There was a port of Tegal located in the east of Cirebon, which was only about 35 miles away. In this area, sailors took advantage of the summit of Mount Slamet as a landmark.²⁵

About 400 km from Jakarta to the east there was a port of Semarang, which was the largest port in Central Java. On a voyage between the ports of Tegal and Semarang, various mountain peaks could be used as a landmark such as the summit of Mount Sindoro, Sumbing and Prahu, while in the south of the port of Semarang, there was Mount Ungaran. The Port of Semarang was located in the Bay of Semarang, which at the end of the 19th century had an anchoring place with a depth of 8 to 10 meters with a distance of about 3 or 4 miles from the coast. Sedimentation from the Semarang River was a main problem often encountered.

To the east of Semarang harbor leading to Surabaya (which was about 310 km away) there were several ancient small ports such as Jepara, Juana, Rembang, Lasem, and Tuban. In the 19th century, the port of Surabaya

(Tanjung Perak) was still surrounded by swamps. The bottom part of the shipping lane to the harbor was in the form of very soft mud so that ships that ran ground in this area only suffered slight damage. Futhermore, to the east of Surabaya, there was still a number of small ports that served as feeder ports for Surabaya ports. These ports such as Pasuruan, Probolinggo, and Besuki served as the main gateway for sugar exports. In addition, there is also the port of Panarukan which was known as a gateway for tobacco exports.

Ports

According to Knaap, the port of Java in the early modern period was different from the current port condition. In the early modern period, most ports had no 'dock'. Port was identified as mouth of a river or an open roadstead, in which larger fleets were required to anchor in the roadstead. Meanwhile, the passengers and their cargoes landed on a barge or a small tender. The coastal zone especially in Java was shallow water area. Another crucial problem often encountered by Java harbor was river silting. There were many settlements spreading along these port cities. These settlements were formed by non-Javanese seafaring communities, such as Malay, Chinese, Indian, Sulawesi, and others. However, most of the population was relatively small, ie less than 10,000. The number was different from the port cities in Batavia, Surabaya, and Semarang, which had a population of around 10,000 and 30,000. Many port cities were considered as the economic centers of their region. Moreover, ports also functioned as an inlet for imports or an outlet for exports, which were connected by a network of rivers or small roads.²⁶

Furthermore, since the pre-colonial period, the north coast of Java had been one of the most dynamic coastal regions in the Indonesian archipelago. This can be seen from the number of developing ports in the region. Tomé Pires who arrived in Java in 1513 noted a number of 24 ports along the north coast of Java from Banten to Panarukan. In addition, this region also developed kingdoms based on the maritime trade sector, such as the sultanates of Banten, Cirebon, Demak, Tuban, Gresik, and so forth. These kingdoms played important roles in the economic development and spread of Islam in Java and its surroundings since the 15th century AD. Among the many ports that emerged and developed on the north coast of Java that were considered important include Banten, Jayakarta (Sunda Kalapa), Cirebon, Tegal, Pekalongan, Semarang, Rembang, Tuban, Gresik, and Surabaya. Before being taken by the Sultanate of Demak in 1523, the port of Banten belonged to the Sunda kingdom, which was centered in the interior of West Java. The conquest of Banten was led by Sunan Gunungjati, who was believed to be one of the Wali Songo figures who spread Islam in Java. Furthermore, Banten Islamic forces succeeded in controlling the port of Sunda Kelapa in 1530.²⁷

Tomé Pires stated that Sunda Kelapa (Calapa) was the main port of the Sundanese kingdom which at the beginning of the 16th century had its capital in Dayo. This port was well managed. In addition to handling economic management, this port also found judicial institutions and clerks thus had clear written rules. It is believed that all commodities originating from the inland of the Sundanese kingdom were traded through this port. The main products produced were pepper, rice, vegetables, and various food products. Meanwhile, the main imported goods include various types of fabrics. ²⁸ After being controlled by Islamic forces from Banten, the name of the port city was changed to Jayakarta. However, Banten's control of Jayakarta lasted less than a century. In 1619, Jayakarta was conquered by the VOC and its name was changed to Batavia. ²⁹ This trading company then developed the port wharf gradually to meet the growing shipping and trade activities. In 1770 the length of the pier in the port of Batavia had reached around 865 meters. ³⁰

An important port to the east of Jakarta was Cirebon, which was located on the east end of the north coast of West Java. Like Banten, before being conquered by the Sultanate of Demak, this port also belonged to the Sunda kingdom. Tomé Pires, who had visited Cirebon in 1513 stated:³¹

'The land of Cherimon is next to Sunda... This Cherimon has a good port and there must be three or four junks there. This palace Cherimon is about three leagues up the river; junks can go in there'

Meanwhile, the hinterland area of Cirebon was a fertile region and rich in mineral materials. Inland Cirebon was an abundant producer of rice and in the future became the fourth largest sugar producer in Java. Inland Cirebon was also a producer of coffee and indigo and teak wood of very good quality. In Tomé Pires' testimony: 'This Cherimon has a good port ... It has a great deal of rice and abundant foodstuffs. This place has better wood for making junks than anywhere else in Java'. 332

In 1681 the VOC succeeded in controlling Cirebon and establishing a monopoly. An agreement signed in 1681 stated that the VOC obtained monopoly rights to import clothing, cotton, opium and export monopolies for the pepper, wood, sugar and rice commodities. The pepper cultivated in the Cirebon region "is regulated by the VOC and this trading company also sets the price".³³

Meanwhile the port of Semarang is thought to have arisen around the 9th century when the Hindu Mataram kingdom made it one of the kingdom's main ports. However, the development of this port was very slow. When he arrived in Semarang in 1513, Tome Pires witnessed that Semarang was already a city ruled by Muslim rulers who were the vassals of the Demak Sultanate. He also stated that Semarang, which had a population of around 3000 people, did not have a good port, although it had 3 junks and 4 or 5 lanchara. The trade

commodities produced were mainly rice and other foodstuffs.³⁴

After the collapse of the Sultanate of Demak, Semarang came under the authority of the Mataram kingdom which was centered in the interior of Central Java. However, during the reign of Sultan Amangkurat II (1677 - 1703), the port of Semarang was controlled by the VOC after helping to crush the Trunajaya rebellion. To strengthen its position, the VOC also made fortifications in the port area of Semarang, the fortress 'De Vijfhoek'. When they first conquered Semarang, the VOC saw that Semarang was only a harbor often threatened by mud sedimentation from the Semarang River. ³⁵ Therefore, the VOC always tried to improve the port of Semarang so it could be used as a trading center in the northern coast of Java.

The most important port on the north coast of East Java is Surabaya. The name of the Surabaya port was only mentioned in the XIV century in the Kertagama State book. This book tells that king Hayam Wuruk of Majapahit visited Surabaya which at that time was the capital of the Duchy of Jenggala. A Chinese Muslim named Ma-Huan also described the city of Surabaya on two trips to Surabaya during the periods 1413-1415 and 1421-1422 describing:³⁶

'going to southwards from these two village (Tuban and Gresik) a distance of about seven miles one comes to Surabaya, where many rich people are also found. Here are about a thousand families, with Chinese amongst them'

In the transitional period between the Hindu Majapahit kingdom period and the Islamic period, Surabaya played a very important role. Trade activities had become the main channel for the spread of Islam. It is not surprising that during the heyday of Majapahit there was already an Islamic community with their mosque in this city. The dynastic shifts in Central Java from Demak, Pajang to Mataram also influenced the development of Surabaya. At the end of the first quarter of the 17th century, Mataram began to attack Surabaya. After a tiring battle, Surabaya was finally defeated by Mataram in 1625 and the VOC also began expanding to various ports on the north coast of Java.

Although VOC trade delegates had been sent to Surabaya since the early days of the establishment of the VOC, their intervention in Surabaya was rather slow. The opportunity of the VOC to intervene against Surabaya was actually determined by the politics of Mataram, not the indigenous forces in Surabaya itself. It is known that since 1742, the VOC began to help Mataram to crush the Chinese rebellion. In the agreement between Mataram and the VOC in 1743 it was stipulated that Surabaya was to be handed over to the VOC. Therefore the Surabaya trade network developed in the archipelago not only inter-island also intra-Asian.³⁷ Between 1774 - 1777, VOC documents stated that Surabaya's shipping network included: ports in Java, Bali, Bima,

Banjarmasin, Pasir, Mempawah, Sambas, Palembang, Makassar, Mandar, Malacca, Riau, Johor, Makassar, Mandar, and Trengganu.³⁸

The existence of Madurese sailors were considered important in the history of eastern Indonesia. Oral tradition stated that the Madurese had taught sailing techniques to Rote fishermen. Based on Macknight records, praus from Madura also sailed to Timor Island and even northern Australia to collect sea products such as lola shellfish (*trochus niloticus*), turtle shells and sea cucumbers (*beche de mer*).³⁹

The spice trade with the eastern archipelago also required several large ships. The Dutch report as quoted by Meilink-Roelofsz noted that junks from Gresik owned by local authorities had carried out trade interactions with Banda Island. Furthermore, it was stated that during the west monsoon season, about 1000 medium-sized vessels in the area nearby Gresik sailed to the Straits of Malacca, Kalimantan, Malay Peninsula, and Thailand. While during the east monsoon season, they reached Mindanao, Maluku, Kei Islands, and Aru⁴⁰

Monsoon

In addition to the natural conditions of the waters and the relatively safe coast, and the harbor with a rich hinterland, shipping along the north coast of Java was also facilitated by the monsoon that changed direction regularly. From May to October, the east or southeast monsoon winds blew from the Australian mainland. During this season, ships came from the east to Java, Sumatra and the Malay Peninsula. This period is the dry season when farmers in Java harvested rice which is one of the important maritime trade commodities in Southeast Asia. 441

From November to April the west or northwestern monsoons originating from the Asian mainland guided ships from the Malay Peninsula and Sumatra on their return to the north coast of Java and other regions in the eastern Indonesian archipelago. Between the two seasons, that is between April and May and October to November, there was often a transition season. Despite the frequent storms, the situation was not as severe as the typhoon in South China. The condition of the Java Sea can be said to be quite friendly to a sailing ship. In addition to determining direction, the change of season also determined the type of commodity being traded. Seasonal winds that changed direction regularly in the waters of the Archipelago and surrounding areas had made it possible for inter-regional, inter-island and intra-Southeast Asia and even international shipping to be conducted. This in turn made it possible for the Archipelago, especially the northern coast cities of Java, to become an important part of the international maritime trade system.

The Actors

The maritime trade actors in the northern coastal cities of Java consisted of at least ship owners, captains, boat captains, traders, and seamen or crew. Of course, the actors were not always different people. The shipowner was often also a trader who provided trading capital to be run by the captain and his crew. It could also be the case that one person was the shipowner, trader, and captain.

As is known during the premodern era, the captain and sailor professions were not obtained through the process of formal education. A person could achieve that competency through direct practice on board handling the ship and finding a safe shipping route. Likewise, expertise in international trade could also be obtained through hands-on experience. At first, candidates had to intern to sail and trade together with an experienced captain. They gained knowledge and skills through a process of oral inheritance and direct practice of becoming sailors or traders. The more often they took part in shipping and trade transactions, the more chance they would learn. By following voyages, they could learn how to lead the crew as well as to trade for profit. At that time, the relationship among maritime trade actors was largely determined by the trust built properly through frequent partnerships among shipowners, traders, ship crews and trading partners.⁴³

Shipping Networks

In relation to trade in the Indonesian archipelago as a system, Andre Gunder-Frank quoted Das Gupta as saying:⁴⁴

Essentially it was a pettern of east-west exchange of goods within the Indonesian archipelago with Javanese rice being carried everywhere. The central fact of Indonesia trade was that two major products, pepper and spices, were located at the twoo extremities of the archipelago. Pepper was produced in Sumatra, Malaya, West Java and Borneo. Spices (cloves, nutmeg, and mace) were available only inte eastern island group of Mollucas and Bandas. Java produced rice, salt, salt-fish and variety of foodstuffs as well as some cotton, thread and textiles....Rice and other Javanese products were carried by Javanese traders and junk-owners to Sumatra to have them exchanged for pepper and other foreign goods. Pepper was then taken to Java and further on to Bali in order to collect in exchange Balinese cotton fabrics which wer in great demand in the spice islands. In the final stage the Javanese sailed out to the Mollucas and Bandas carrying rice, and othe Javanese products, Balinese cloth, along with Indian extiles and Chinese porcelain, silk and small coins...A marked

feaure of Indonesian trade was the interwining of inter-island and international trade

Power and trade are terms used to describe the European expansion in Asia during the early modern times. Trade oriented view and commercial and institutional innovations were introduced by the Europeans. The European also established companies and collaborating closely with Asians as their partner. 45 Batavia was made the VOC's headquarter which also became the spider in the web of logistical organization among the coastal ports in the archipelago.⁴⁶ The focus on the region of West Java had been intensified when in the 1610s, a new direct route between the Cape of Good Hope and Java was explored. Even the Sunda Strait became the central hub to the link between Batavia and Europe and was a traffic-control-center for intra-Asian shipping. There was regular shipping from Batavia to international destinations such as Taiwan, Japan, Siam, etc. When the VOC shipped to Taiwan with *Nieu Enckhuysen*, for example, they brought a cargo of sugar. After unloading in Taiwan, the ship immediately would need to be returned to Batavia to sail to the next destinations to European countries.⁴⁷ In 1610, the VOC established several international routes in the archipelago, consisting of Sumatera route, with Aceh as the headquarter, Straits of Malaka, Spice Islands including Ambon, Ceram, Banda and the Moluccas which stretched from the East Java.

When the VOC began operating in the Indonesian archipelago, the pattern of maritime trade was still going well. At the beginning of their presence in Java, they tried to adjust to existing trade patterns, taking a persuasive approach by establishing good friendships with local authorities. They often offered suitable offerings because the authorities were the ones with the authority to determine who could trade in their territory. When the VOC arrived in Banten, the monopoly on the sale of pepper was in the Sultan's hands. Besides that, the VOC also treated the local Chinese as trading partners. When the VOC traded in Banten, the Chinese who already had some kind of license from the authorities to provide pepper commodities for the VOC hoped for an exchange of silk, porcelain and other items from China. In this way the VOC obtained an adequate load. Such a situation had forced the VOC to carry out intra-Asian trade to obtain various commodities that can be exchanged for pepper to be transported to Europe. It became a fact that the European traders not only enlivened global trade but also intra-Asian trade.

Problems arose when the Europeans arrived on Java's north coast, especially in Banten. Their presence increased the bargaining power of the Sultan, so as a result, the price of pepper became expensive which in turn reduced the profits of the European traders. In the context of this price increase, the war between the VOC and the local authorities in the archipelago was often a battle for monopoly fighting. The local authorities who implemented a sales monopoly were opposed by the VOC which imposed purchasing monopolies.

Initially it was done in order to stabilize the highly fluctuating prices which were detrimental to the European counterparts. With purchasing monopoly forced by gun violence, the VOC obtained the product at low price but sold it at a very high price in order to gain a large profit.

In the early modern period, all ships (large and small) were still driven by wind or rowing power. Knaap (1996) categorized the types of shipping at that time into three categories, VOC ships, non-VOC/European ships, and private vessels. The private vessels can be owned by both local residents from various ethnic groups and from foreign descendants such as Chinese, Arabs, Indians, Koja, and so on. The north Java coastal trade routes and shipping intensity of the four areas, namely Java, Maluku, Nusa Tenggara, Kalimantan, and Selat Malaka. It can be conducted by VOC and private ships.

Shipping and trade routes were connected between ports on the north coast of Java, between ports on the Java coast and other regions in the archipelago and between ports on the north coast of Java, especially Batavia, with other regions in Asia and Europe. During the period 1774-77 when the VOC was still showing in vitality, shipping from Batavia to the ports on the north coast of Java by using VOC ships was 38.1% while the VOC ships that sailed to other regions were only around 8.4 %, ie shipping to Maluku. Batavia's maritime relations with various ports on the north coast of Java are even more spectacular when seen in the role of private ships or local vessels. Around 60.9% of local ships from Batavia went to the ports on the Java's coast. Meanwhile, the highest percentage from other regions was only 6.6% achieved by Nusa Tenggara and Kalimantan. This figure is only about onetenth of the contribution of ports on the north coast of Java. This figure shows that the role of the local population of indigenous people (consisting of several ethnic groups) and people of foreign eastern descent such as Chinese, Arabs, etc. in local shipping in this region was still very important even when the VOC held dominance in shipping and trade.

It is clear that the role of ports on the north coast of Java during the commercial period and in the early modern period was still very large and even greater in trade in the archipelago, Southeast Asia and even international. However, there seems to be a shift in the role of the actors. In this case, the role of private vessels which included indigenous ships shifted towards local and archipelago trade. On the other hand, the role of VOC and other European ships in intra-Asian shipping had increased. This is due to the VOC's policy to tightly control the construction of large ships on the north coast of Java on one side and the growing European ships on the other side. There was specific direction of trade between Batavia and several important ports on the north coast of Java. Between 1774-1777, local shipping destination to Madura was dominant from Juwana and Pasuruan (each 45%).

Rekonstruksi Pantai Utara Pulau Jawa

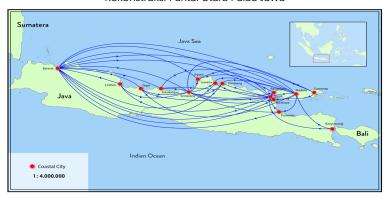


Figure 1 Local Shipping Network in the North Coast of Java 1774-1777

The Batavia network mainly included ports to the east up to Surabaya. Further to the east, Batavia did not have a strong influence as far as private shipping was concerned. The most powerful network of the ports of Batavia consisted of two groups. The first group consisted of Cirebon, Pekalongan, and Tegal. The second group was Jepara and Rembang. The first group generally sent rice to Batavia, while the second sent teak wood. From Batavia, they brought various imported products. Meanwhile, the Semarang network actually covered a wider area, from the port of Batavia to Sumenep on the island of Madura. Besides Semarang, which is located in the middle of the north coast of Java, this port also became an international port that exported rice and salt to Malacca, several important ports on the island of Sumatra and even Makassar on the island of Sulawesi. Rice and salt were imported from various small ports within the Semarang network.

Figure 1 clearly shows the Surabaya network. This international port is the center of local shipping network of private vessels in the adjacent surrounding areas namely Bangkalan, Sumenep, Pasuruan, and Banyuwangi and Bali. Surabaya functioned as a distributor port for imported commodities and collectors of export goods for these ports. There were a few exceptions where Surabaya has a close relationship with Rembang, Juana, and Jepara. These small ports were teak wood suppliers for the development of the city of Surabaya. In addition, these ports also supplied several superior commodities such as salt, shrimp paste, salted fish, and traditional cloth.

Another thing that is interesting to know is the types of traditional ships used by traders and sailors on the north coast of Java. Knaap (1996) gives a fairly clear picture. There were several types of ships used mainly: *mayang*, *pancalang*, *gonting*, *chialoup*, and *cunea*. During the period 1774-77, in 14 ports in the north coast of Java (as shown in Table 1) the frequency of ships

arriving at these ports was according to the ship type, such as mayang (51%),⁴⁴⁹ pancalang (15%),⁵⁰ gonting (13%),⁵¹ chialoup (8%),⁵² cunea (2%).⁵³

The local shipping which "dominated" by traditional ships from the local traders and seamen during the VOC period played a very important role.

Table 1 Number of Private Sailing with Various Foreign Ports, 1774-77

| | Destination | | | |
|-------------|-------------|---------|----------|----------------------|
| Origin | Batavia | Cirebon | Semarang | Surabaya & Gresik |
| Ambon | 20 | - | - | - |
| Bali | 25 | - | - | 96 |
| Banjarmasin | 16 | 2 | 31 | 81 |
| Bima | 18 | - | 6 | 9 |
| Johor/Riau | - | 2 | 28 | 23 |
| Makassar | 45 | - | 25 | 7 |
| Mampawah | 3 | - | 22 | 11 |
| Mandar | 12 | - | - | - |
| Melaka | 13 | 13 | 23 | - |
| Padang | 24 | - | - | - |
| Palembang | 43 | 37 | 58 | 104 |
| Pasir | 11 | - | 29 | 12 |
| Sambas | 1 | - | 5 | 18 |
| Siam | 11 | - | - | 1 |
| Trengganu | - | - | 15 | 17 |

Source: Knaap (1996): p. 51.

During the end of the XVIII century, Javanese rice was an important trade commodity for export to the Straits of Melaka. During the period, Batavia imported approximately more than 122.000 *pikul* of rice from Central Java, as well as 4.000 *pikul* of tobacco which came from Central Java's coastal areas and mountainous hinterland.⁵⁴ 67% (7,010 piculs) of rice from Cirebon was exported to the Melaka Strait followed by Semarang (36%), Gresik (51%), and Surabaya (39%). Sugar commodity was very important in trade with the Southeast Asian region. The following are directions for the contribution of the sugar cane export trade to several important ports in Java with the Melaka Strait region: Batavia (81%), Semarang (85%), Rembang (100%), Gresik (31%), and Surabaya (63%). Meanwhile for the export of sugar cane were Cirebon (99%), Semarang (83%), Gresik (22%), and Surabaya (21%). Javanese clothing was also an important commodity to be exported to the Straits of Malacca, it came from Cirebon (82%), Semarang (63%), Gresik (51%), and Surabaya (64%%)⁵⁵

There were many places that supplied Batavia that came from man smaller craft that had originally been intended to participate in the traffic between the city and the roadstead for th loading and unloading of bigger vessels. Banten had maintained connections with other ports in Java and became a satellite of Batavia. There were ship movements that conducted by VOC and private ships during 1774-1777, the VOC conducted 14 ships meanwhile the private sector conducted 825 ships. ⁵⁶ About 44% shipping volumes was belong to VOC and the rest was for indigenous actors as well as Chinese. According to Knaap (2010) the identification of private sector ships is looked by the ethnic background, 30-35% ships were Javanese, 15% Chinese, and approximately 50% were Balinese, Makassarese, Malays. It assumes the dynamics of the local movements in handling trade commodieties and dealing with the VOC's power. It also indicates the role of the indigenous Javanese community of skippers, although it handled parallely by the Chinese, but it was the process to growing role in economy of Java.

Conclusion

During pre-modern times, ports on the north coast of Java played important roles in the maritime trade network both in the Indonesian archipelago and international maritime trade. This is due to the potential of the Java island in producing various commodities such as rice, other agricultural products, plantations needed by the wider market. In addition the strategic location of the north coast of Java, in the context of trade, had also placed it as a transit point in international trade. Likewise, the relatively dense population of Java was very attractive market potential for traders. This potential was exploited by Javanese sailors who had experience in shipping between India and China since pre-modern times. As combination of these factors had placed the ports in an important position within the regional and international maritime trade network.

Towards the early modern era, the maritime trade of the cities of the north coast of Java began to decline following its defeat against the Portuguese and the destruction of the Javanese pantura cities by the agrarian kingdom of Mataram. The European came when Javanese maritime forces were in decline. However what happened at that time was not the death of Javanese maritime power but a development of its maritime shipping and maritime trade even in the face of the VOC's succession and conquest of these trading cities. Traders and seamen in the region adapted to the new situation to survive.

The expansion of the VOC and other European ships resulted in the shift in Javanese maritime activities in the Asian region. Indigenous fleets and sailors tended to be displaced by European ships to only navigate trade routes in the north coast of Java and the Indonesian archipelago to around the Straits of Malacca. Meanwhile, the long-distance trade routes to other Asian regions and Europe were completely dominated by European ships.

Endnotes

- 1. D.H. Burger, *Sejarah Ekonomis Sosiologis Indonesia I*, Translated by Prajudi Atmosudirdjo, Jakarta: Pradnjaparamita, 1962, p. 46; M S, Mokhtar, M A A Azmi, Mohd Samsudin, Perkembangan Sistem Perdagangan Merkantilisme Negeri-Negeri Melayu Bersekutu (1909-1913), *Jebat*, Vol. 44 (2), Dec 2017, p. 3.
- 2. Singgih Tri Sulistiyono & Yety Rochwulaningsih, "Contest for hegemony; The dynamics of inland and maritime cultures relations in the history of Java island, Indonesia," *Journal of Marine and Ilsland Cultures*, Vol. 2, Issue 2, December 2013, pp. 115 127.
- 3. Burger, pp. 59, 76 91.
- A. Cortesao, The Suma Oriental of Tomé Pires: An Account of the East, from the Red Sea to Japan, Written in Malacca and India in 1512-1515, London: Hakluyt Society Series, 1944, p. 74. See also B. E. Colless "Majapahit Revisited," Journal of Malaysian Branch and Royal Asiatic Society XLVII (2) without year.pp. 124-161.
- 5. Palembang, as a former center of the Srivijaya kingdom, is said to have become a hotbed of Chinese pirates after 1377. See for example R.W. McRoberts, "Notes on Events in Palembang 1389-1511: The Overlasting Colony," *JMBRAS* 1 (59) 1986, p. 73.
- 6. Anthony Reid, Southeast Asia in the Age of Commerce 1450 1680, Volume I: The Lands below the Winds, New Haven, London: Yale University Press, 1988, Volume II: Expansion and Crisis, New Haven, London: Yale University Press, 1993.
- 7. Kenneth R. Hall, *Maritime Trade and State Development in The Early Southeast Asia*, Honolulu: Univirsity of Hawaii, 1985, p. 25.
- 8. Singgih Tri Sulistiyono, "The Java Sea Network: Patterns in the Development of Interregional Shipping and Trade in Process of Economic Integration in Indonesia, 1870s 1970s," Ph.D. dissertation Leiden University, 2003.
- West Java, namely Banten, also produces spices which are traded in Malacca.
- I Gde Parimartha, Perdagangan dan Politik di Nusa Tenggara, 1815-1915, Jakarta: Perwakilan KITLV, 2002.
- 11. Andre Gunder Frank, *ReOrient: Global Economy in the Age of Asia*, Berkeley/Los Angeles/London: University of California Press, 1998, p. 97.
- 12. Pires, Suma Oriental, pp. 237-242.
- 13. Gunder Frank, *ReOrient*, hlm. 100.
- 14. A.B. Lapian, *Pelayaran dan Perniagaan Nusantara Abad Ke-16 dan 17*, Jakarta: Komunitas Bambu, 2008, p. 120.
- 15. See for example Pierre-Ives Manguin, "The vanishing *jong*: Insular

- Southeast Asian fleet in trade and war (Fifteenth to seventeenth centuries)", in Anthony Reid (ed.), *Southeast Asia in the Early Modern Era: Trade, Power, and Belief,* Ithaca-London: Cornell University Press, 1993, pp. 198-199.
- 16. See Sulistiyono, "Perkembangan Pelabuhan". See also Sharon Siddique, *Relics of the past? A sociological study of the Sultanates of Cirebon, West Java*, Ph.D. dissertation, University of Bieleveld, 1977.
- 17. De Graaf & Th. Pigeaud, *Kerajaan-kerajaan Islam di Indonesia*, Jakarta: Grafiti Pers, 1989, p. 24-26.
- 18. Willem G.J. Remmelink, *Perang Cina*, Yogyakarta: Jendela, 2001.
- 19. J.N.F.M. à Campo, "Indonesia as maritime state", *paper* presented at The First International Conference on Indonesian Maritime History, 'The Java Sea Region in an Age of Transition 1870-1970', Semarang: 1- 4 Desember 1999, p. 11.
- 20. F.S. Gaastra & J.R. Bruijn, "The Dutch East India Company's shipping, 1602-1795, in a comparative perspective," in J.R. Bruijn & F.S. Gaastra (eds), Ships, sailors and spices: East India companies and their shipping in the 16th, 17th and 18th centuries, Amsterdam: NEHA, 1993, hlm. 178. See also F.S. Gaastra, De geschiedenis van de VOC, Zutphen: Walburg, 2002, p. 57-65.
- 21. Knaap, Shallow Waters, p. 11.
- 22. A.G. Findlay, A directory for the navigation of the Indian Archipelago and the coast of China from the Straits of Malacca and Sunda, and the passage east of Java to Canton, Shanghai, The Yellow Sea, and Korea, London: Laurie, 1889, p. 648.
- 23. L.J. van Rhijn, *Reis door den Indischen Archipel in het belang der Evangelische zending*, Rotterdam: Wijt, 1851, p. 55.
- 24. Findlay, A directory, p. 639.
- 25. *Ibid.* hlm. 639-654. Shipping along the north coast of Java during the VOC era can be seen for example in G.J. Knaap, *Shallow waters, rising tide: Shipping and trade in Java around 1775*, Leiden: KITLV Press, 1996, pp. 56-60.
- 26. Gerrit Knaap, "Shipping and Trade in Java, c. 1775: A Quantitative Analysis," *Modern Asian Studies*, Vol. 33, No. 2 (May, 1999), pp. 405-420, Cambridge University Press.
- 27. Ribert Cribb, *Historical Atlas of Indonesia*, Electronic version, 2009.
- 28. Pires, Suma Oriental, p. 237.
- 29. Findlay, A directory, p. 643.
- 30. Knaap, Shallow Waters, p. 20.
- 31. As quoted by Singgih Tri Sulistiyono, "Cirebon Port Development and Its Effect on the Socio-Economic Life of Cirebon City, 1859 1930", Unpublished thesis at Gadjah Mada University, 1994, p. 41

- 32. Sulistiyono, "Cirebon port", p. 43.
- 33. Ibid., p. 139-140.
- 34. Pires, Suma Oriental..., p. 258.
- 35. Singgih Tri Sulistiyono, Noor Naelil Masruroh, Yety Rochwulaningsih, "Contest for Seascape: Local Thalassocracies and Sino-Indian Trade Expansion in the Maritime Southeast Asia During the Early Premodern Period," *Journal of Marine and Island Cultures*, Vol. 7 (2) 2018.
- 36. Ibid. pg.120.
- 37. F.S. Gaastra & J.R. Bruijn, "The Dutch East India Company's Shipping 1602-1795 in A Comparative Perspective", in Jaap R Btuijn & Femme S. Gaastra, *Ships, Sailors and Spices: east India Companies and Their Shipping the 16th, 17th and 18th Century,* Leiden: NEHA, Series III, 1993, pp. 178-180.
- 38. F.A. Sutjipto Tjiptoatmodjo, "Kota-kota Pantai di Sekitar Selat Madura Abad ke-17 sampai Medio Abad ke-19." Ph.D. dissertation, Gadjah Mada University Yogyakarta, 1983.
- 39. C. C. Macknight, "The Study of Praus in the Indonesian Archipelago," *The Great Circle*, Vol. 2 (2) (October), 1980, pp. 117-128.
- 40. M. A. P. Meilink-Roelofsz, *Asian Trade and European Infuence in the Indonesian Archipelago between 1500 and about 1630*, The Hague, 1962, p. 272; Macknight, "The Study of Praus," p. 123.
- 41. Knaap, *Shallow waters*, p. 2. In November 1776, the VOC sailing ship 'Renswoude' spent a week voyaging from Jakarta to Semarang. At that time the ship benefited from the north-western monsoon. Approximately 100 men manned the ship.
- 42. Knaap, Shallow Water, p. 53-54.
- 43. Ibid., p. 64.
- 44. Gunder-Frank, *ReOrient*, p. 97-98.
- 45. Chris Nierstraz, In the Shadow of the Company: The Dutch East India Company and its Servants in the Period of its Decline (1740-1796), Leiden: Brill, 2012.
- 46. Robert Parthesius, *Dutch Ships in Tropical Waters: The Development of the Dutch East India Company (VOC) Shipping Network in Asia 1595-1660*, Amsterdam: Amsterdam University Press, 2010, p. 109.
- 47. Parthesius, *Dutch Ships*, 139.
- 48. J.Th. Vermeulen, *Tionghoa di Batavia dan Huru Hara 1740*, Jakarta: Komunitas Bambu, 2010, pp. 4-7. After capturing the Sunda Kalapa in 1619, the VOC tried to attract the Chinese in the trading cities on the north coast of Java to move to Sunda Kalapa (Batavia) in order to revive the city's economy. After destroying the city of Jepara twice, the VOC also encouraged the Chinese in Jepara to move to Batavia. Likewise, after the conquest of Banten in 1682, the Chinese

- population was also made in some way to move to Batavia.
- 49. The name *Prahu Mayang* is related to the word *payang*, a type of trawl net, which indicates that this boat was originally designed for fishing vessels which could then be used for trade. Mayang is a boat that has a flat bottom and made of the wooden boards. It has a 10 to 13 meters in length. The ship is relatively wide so it has wide space and has about 7 to 8 poles. This is a very popular type of Javanese *prahu*.
- 50. Pancalang is a type of traditional ship originating from the Malay world. This is a wooden planking ship that has a sail with a length of about 13 to 20 meters with a mask length of 3 meters.
- 51. Gonting is actually a large type of Mayang with no stern (bow) and bow, curved like a Mayang. It has 13 to 20 meters in length and can be used for inter-island shipping.
- 52. Chialloup or shallop ship has an initial model from a European ship, which is equipped with a mast in the bow and stern or there are some additional small sails. It was made by the Dutch company in Rembang and Lasem.
- 53. Cunea is a type of ship originating from China with 10 to 20 meters in length and using a single sail. It has a flat ground with a higher stern position. Most of these ships are also produced in Rembang and Lasem.
- 54. Gerrit J. Knaap, "All about Money: Maritime Trade in Makassar and West Java around 1775," *Journal of the Economic and Social History of the Orient*, Vol. 49 (4): 482-508.
- 55. Knaap, *Shallow Waters*, pp 100 112.
- 56. Knaap, All about money, p. 500.

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By this research project led him to obtain his Ph.D from Leiden University after defending his thesis about the Java Sea networks and the formation of national economic integration in Indonesia in the 19th century. Currently his research concentrates on the early modern world of maritime networks and economic transformation in the Java Sea. His works have also been published by several reputable journals such as Marine Policy, Journal of Marine and Island Culture, Itinerario, and JATI-Journal of Southeast Asian Studies, and by the International Zheng He Society in Melaka, etc.

Haryono Rinardi (haryonorinardi@lecturer.undip.ac.id) is an Associate Professor of Social Economic History, Diponegoro University. He got his PhD at Universitas Gadjah Mada and had successfully defended his thesis entitled Credit for the People: Policy Banking Credit for Small and Medium Enterprises, 1904-1990. His specialization is on history of public credit banking. His published book "Potret Buram Pedesaan dan Agraria di Indonesia: Tinjauan Sosiologi Kesejarahan" [A blurred portrait of rural and agrarian in indonesia: overview of historical sociology] become main reference on social economic history in rural Java. This book has written together with Singgih Tri Sulistiyono and Yety Rochwulaningsih. In 2016-2017, he has conducted research about interisland trade in under the Indonesia's economic integration. He has also published several publications in national or international journals.

Yety Rochwulaningsih (wulan@live.undip.ac.id) is a Professor of Sociology and Maritime History, Diponegoro University, where she is Director of Center for Asian Studies (CAS). She is known for being vocal in defending the rights of Indonesian salt farmers. Her works published in some reputable journals are: 'Marine policy basis of Indonesia as a maritime state: The importance of integrated economy', published by Marine Policy in 2019; and 'Traditional knowledge system in *palung* salt-making in Bali Island', published by Journal of Ethnic Food in 2019. In addition to journal publications, she published her works in books and monographs. Since 2016 until now she works on her research about the historical formation of ASEAN Economic Comm

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